

Connecting via Winsock to STN

Welcome to STN International! Enter x:x

LOGINID:SSSPTA1623PAZ

PASSWORD:

TERMINAL (ENTER 1, 2, 3, OR ?):2

* * * * * Welcome to STN International * * * * *

NEWS 1 Web Page URLs for STN Seminar Schedule - N. America
NEWS 2 "Ask CAS" for self-help around the clock
NEWS 3 SEP 09 ACD predicted properties enhanced in REGISTRY/ZREGISTRY
NEWS 4 OCT 03 MATHDI removed from STN
NEWS 5 OCT 04 CA/CAPplus-Canadian Intellectual Property Office (CIPO) added
to core patent offices
NEWS 6 OCT 13 New CAS Information Use Policies Effective October 17, 2005
NEWS 7 OCT 17 STN(R) AnaVist(TM), Version 1.01, allows the export/download
of CAPplus documents for use in third-party analysis and
visualization tools
NEWS 8 OCT 27 Free KWIC format extended in full-text databases
NEWS 9 OCT 27 DIOGENES content streamlined
NEWS 10 OCT 27 EPFULL enhanced with additional content
NEWS 11 NOV 14 CA/CAPplus - Expanded coverage of German academic research
NEWS 12 NOV 30 REGISTRY/ZREGISTRY on STN(R) enhanced with experimental
spectral property data

NEWS EXPRESS NOVEMBER 18 CURRENT VERSION FOR WINDOWS IS V8.01,
CURRENT MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP),
AND CURRENT DISCOVER FILE IS DATED 13 JUNE 2005.
V8.0 USERS CAN OBTAIN THE UPGRADE TO V8.01 AT
<http://download.cas.org/express/v8.0-Discover/>

NEWS HOURS STN Operating Hours Plus Help Desk Availability
NEWS INTER General Internet Information
NEWS LOGIN Welcome Banner and News Items
NEWS PHONE Direct Dial and Telecommunication Network Access to STN
NEWS WWW CAS World Wide Web Site (general information)

Enter NEWS followed by the item number or name to see news on that
specific topic.

All use of STN is subject to the provisions of the STN Customer
agreement. Please note that this agreement limits use to scientific
research. Use for software development or design or implementation
of commercial gateways or other similar uses is prohibited and may
result in loss of user privileges and other penalties.

* * * * * STN Columbus * * * * *

FILE 'HOME' ENTERED AT 09:54:35 ON 01 DEC 2005

=> file caplus

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

0.21

0.21

FILE 'CAPLUS' ENTERED AT 09:54:43 ON 01 DEC 2005

USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.

PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2005 AMERICAN CHEMICAL SOCIETY (ACS)

Copyright of the articles to which records in this database refer is held by the publishers listed in the PUBLISHER (PB) field (available for records published or updated in Chemical Abstracts after December 26, 1996), unless otherwise indicated in the original publications. The CA Lexicon is the copyrighted intellectual property of the American Chemical Society and is provided to assist you in searching databases on STN. Any dissemination, distribution, copying, or storing of this information, without the prior written consent of CAS, is strictly prohibited.

FILE COVERS 1907 - 1 Dec 2005 VOL 143 ISS 23
FILE LAST UPDATED: 30 Nov 2005 (20051130/ED)

Effective October 17, 2005, revised CAS Information Use Policies apply. They are available for your review at:

<http://www.cas.org/infopolicy.html>

=> deuterium (l) exchange
85155 DEUTERIUM
142 DEUTERIUMS
85222 DEUTERIUM
(DEUTERIUM OR DEUTERIUMS)
544180 EXCHANGE
16396 EXCHANGES
551967 EXCHANGE
(EXCHANGE OR EXCHANGES)
L1 9953 DEUTERIUM (L) EXCHANGE

=> palladium or Pd
153121 PALLADIUM
37 PALLADIUMS
153124 PALLADIUM
(PALLADIUM OR PALLADIUMS)
180134 PD
2199 PDS
181938 PD
(PD OR PDS)
L2 239348 PALLADIUM OR PD

=> l1 and l2
L3 498 L1 AND L2

=> sealed tube
92805 SEALED
305410 TUBE
179303 TUBES
413883 TUBE
(TUBE OR TUBES)
L4 16857 SEALED TUBE
(SEALED(W) TUBE)

=> l3 and l4
L5 6 L3 AND L4

=> d l5 1-6 ti

L5 ANSWER 1 OF 6 CAPLUS COPYRIGHT 2005 ACS on STN.
TI Kinetics of deuteration of pyrazole

L5 ANSWER 2 OF 6 CAPLUS COPYRIGHT 2005 ACS on STN

TI Selective poisoning of palladium-catalyzed hydrogen-exchange reactions

L5 ANSWER 3 OF 6 CAPLUS COPYRIGHT 2005 ACS on STN

TI The chemistry of the natural order cupressales. XL. The structure of thujopsene and hinokiic acid

L5 ANSWER 4 OF 6 CAPLUS COPYRIGHT 2005 ACS on STN

TI Cyclic acylals

L5 ANSWER 5 OF 6 CAPLUS COPYRIGHT 2005 ACS on STN

TI A new synthesis of 2-phosphoryl-D-glyceric acid

L5 ANSWER 6 OF 6 CAPLUS COPYRIGHT 2005 ACS on STN

TI Synthesis of organic deuterium compounds. I. Deutero-polymethylene

=> d 15 6 ti fbib abs

L5 ANSWER 6 OF 6. CAPLUS COPYRIGHT 2005 ACS on STN

TI Synthesis of organic deuterium compounds. I. Deutero-polymethylene

AN 1951:13733 CAPLUS

DN 45:13733

OREF 45:2415d-i

TI Synthesis of organic deuterium compounds. I. Deutero-polymethylene

AU Leitch, Leonard C.; Gagnon, Paul E.; Cambron, Adrien

CS Natl. Research Labs., Ottawa

SO Can. J. Research (1950), 28B, 256-63

DT Journal

LA English

AB The preparation of (CH₂)_n (I), (MeCH)_n (II), and (CD₂)_n (III) is described, and infrared absorption spectra are shown for I and III. Zn dust (6 g.) was added to a stirred solution of 25 g. CuSO₄.5H₂O in 250 ml. H₂O, the mixture stirred 1 hr., the precipitated Cu allowed to settle, the supernatant liquid decanted, and the residue washed with H₂O, MeOH, and Et₂O; CH₂N₂ prepared from 30 g. MeN(NO)CONH₂ was added over a period of 2 hrs. to a suspension of the precipitated Cu (IV) in a little Et₂O, the mixture allowed to stand 1 day, the ether solution decanted and discarded, the residue digested on the steam bath for several hrs. with 40 ml. 25% HNO₃, and the white flocculent amorphous precipitate filtered, washed with hot H₂O and then EtOH-H₂O (1:1), giving 0.7-0.8 g. I, m. 127-8°; a Cu-Ag alloy, Raney Ni, Naturkupfer C, and precipitated Ag were less satisfactory than IV as catalysts in the polymerization. A solution of MeCHN₂, prepared in 50% yield by the rapid addition of 30 g. EtN(NO)CONH₂ to a stirred mixture of 300 ml. Et₂O and 90 ml. 50% KOH at -15°, added dropwise to a suspension of IV in Et₂O gave 33% II, m. 94-6°. MeNO₂ (25 ml.) and 25 ml. 0.02 M NaOD in D₂O heated 24 hrs. at 110° in a sealed tube placed in a rocker type of shaker, cooled, and the lower layer dried over P₂O₅ and distilled gave 22.0 g. CD₃NO₂, d₂₅₀ 1.1672; 2 more exchanges with D₂O gave 17 g. (59%) CD₃NO₂ (V), d₂₅₀ 1.1832, practically free from H. DCl (VI) was generated from BzCl and D₂O and absorbed in a known weight of D₂O; a mixture of 6 g. V and D₂O (containing sufficient VI to neutralize the CD₃NH₂ formed) treated with D₂ under 3 atmospheric in the presence of 0.4 g. Pd-C, filtered under pressure through a porous glass disk, and evaporated to dryness in vacuo gave 5.9 g. (90%) CD₃ND₂.DCl, which on crystallization from BuOH m. 227-8°; the BuOH contained appreciable amts. of BuOD formed by the exchange reaction CD₃ND₂.DCl + 3BuOH .dblwrw. CD₃NH₂.HCl + 3 BuOD. CD₃NH₂.HCl (23 g.), 130 ml. H₂O, and 18.4 g. KCNO boiled gently for 15 min., and the CD₃NHCONH₂ thus obtained added slowly to a stirred solution of 23 g. H₂SO₄ in 150 ml. H₂O maintained at 0° gave 23 g. (60%) CD₃N(NO)CONH₂ (VII). CD₂N₂ (3 g.), prepared either from VII and NaOD in D₂O (5 g. Na in 30 ml. D₂O) or from CH₂N₂ and D₂O, with an equal weight of IV

gave 0.53 g. (53%) III, m. 122-3°; analytical data indicated the presence of residual H in III.

=> 11(1)12

L6 271 L1(L)L2

=> benzyl?

L7 293503 BENZYL?

=> 16 (1)17

L8 8 L6 (L)L7

=> d l8 1-8 ti

L8 ANSWER 1 OF 8 CAPLUS COPYRIGHT 2005 ACS on STN

TI Efficient deuterium labeling method of biologically active compounds

L8 ANSWER 2 OF 8 CAPLUS COPYRIGHT 2005 ACS on STN

TI Isotope Effects and the Nature of Stereo- and Regioselectivity in Hydroaminations of Vinylarenes Catalyzed by Palladium(II)-Diphosphine Complexes

L8 ANSWER 3 OF 8 CAPLUS COPYRIGHT 2005 ACS on STN

TI On the mechanism of the cyclopalladation reaction of benzyl-benzylidene-amine with palladium(II) acetate in acetic acid

L8 ANSWER 4 OF 8 CAPLUS COPYRIGHT 2005 ACS on STN

TI Pd/C-H₂-catalyzed deuterium exchange reaction of the benzylic site in D₂O

L8 ANSWER 5 OF 8 CAPLUS COPYRIGHT 2005 ACS on STN

TI Deuteration of estrogens using Pd/C as a catalyst

L8 ANSWER 6 OF 8 CAPLUS COPYRIGHT 2005 ACS on STN

TI Palladium-catalyzed transfer hydrogenolysis of benzyl acetate with ammonium formate

L8 ANSWER 7 OF 8 CAPLUS COPYRIGHT 2005 ACS on STN

TI Heterogeneous catalytic isotopic exchange of benzylic compounds in solution

L8 ANSWER 8 OF 8 CAPLUS COPYRIGHT 2005 ACS on STN

TI A selective method for deuterium exchange in hydroaromatic compounds

=> d l8 1-8 ti fbib abs

L8 ANSWER 1 OF 8 CAPLUS COPYRIGHT 2005 ACS on STN

TI Efficient deuterium labeling method of biologically active compounds

AN 2005:739643 CAPLUS

TI Efficient deuterium labeling method of biologically active compounds

AU Esaki, Hiroyoshi; Aoki, Fumiyo; Maegawa, Tomohiro; Sajiki, Hironao; Hirota, Kosaku

CS Department of Medicinal Chemistry, Gifu Pharmaceutical University, Gifu, 502-8585, Japan

SO Abstracts of Papers, 230th ACS National Meeting, Washington, DC, United States, Aug. 28-Sept. 1, 2005 (2005), MEDI-129 Publisher: American Chemical Society, Washington, D. C.

CODEN: 69HFCL

DT Conference; Meeting Abstract; (computer optical disk)

LA English

AB There is an increasing demand for the synthesis of deuterium-labeled compds. used in studies a better understanding of the drug metabolism and of higher-order structure of biomols., and so on. While the various

procedures toward **deuterium**-labeled compds. have been reported, post-synthetic **deuterium exchange** reaction of the unlabeled compds. by a catalytic method is prominent for its applicability. We have shown that hydrogen atoms on **benzylic** carbons are effectively **exchange** into **deuterium** atoms using Pd/C in the presence of a catalytic amount of hydrogen gas in D₂O at room temperature. Furthermore, the application of heat could promote the catalyst activity of the Pd/C-H₂-D₂O system and lead to a H-D **exchange** reaction even on non-activated carbons. Multi-deuterated products using a wide range of unlabeled starting materials including biol. active compds. such as pharmaceuticals and nucleosides can be easily prepared by application of these systems.

L8 ANSWER 2 OF 8 CAPLUS COPYRIGHT 2005 ACS on STN
 TI Isotope Effects and the Nature of Stereo- and Regioselectivity in Hydroaminations of Vinylarenes Catalyzed by Palladium(II)-Diphosphine Complexes
 AN 2004:498212 CAPLUS
 DN 141:190429
 TI Isotope Effects and the Nature of Stereo- and Regioselectivity in Hydroaminations of Vinylarenes Catalyzed by Palladium(II)-Diphosphine Complexes
 AU Vo, Loan K.; Singleton, Daniel A.
 CS Department of Chemistry, Texas A&M University, College Station, TX, 77842, USA
 SO Organic Letters (2004), 6(14), 2469-2472
 CODEN: ORLEF7; ISSN: 1523-7060
 PB American Chemical Society
 DT Journal
 LA English
 AB The hydroamination of styrene with aniline catalyzed by phosphine-ligated **palladium** triflates exhibits a substantial ¹³C isotope effect at the **benzylic** carbon. This supports rate-determining nucleophilic attack of amine on a η^3 -phenethyl **palladium** complex. **Deuterium exchange** observations and predicted isotope effects based on DFT calcns. support this mechanism. Selectivity in these reactions is determined by the facility of **palladium** displacement after reversible hydropalladation of the alkene.
 RE.CNT 27 THERE ARE 27 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 3 OF 8 CAPLUS COPYRIGHT 2005 ACS on STN
 TI On the mechanism of the cyclopalladation reaction of benzyl-benzylidene-amine with palladium(II) acetate in acetic acid
 AN 2003:91339 CAPLUS
 DN 139:53135
 TI On the mechanism of the cyclopalladation reaction of benzyl-benzylidene-amine with palladium(II) acetate in acetic acid
 AU Albert, Joan; Granell, Jaume; Tavera, Raquel
 CS Departament de Química Inorgànica, Universitat de Barcelona, Barcelona, 08028, Spain
 SO Journal of Organometallic Chemistry (2003), 667(1-2), 192-196
 CODEN: JORCAI; ISSN: 0022-328X
 PB Elsevier Science B.V.
 DT Journal
 LA English
 OS CASREACT 139:53135
 AB The reaction of benzyl-benzylidene-amine C₆H₅CH:NCH₂C₆H₅ (1) and Pd(OAc)₂ in a 1:1 molar ratio in CH₃CO₂D at 60° (reaction b) produced D-enriched cyclopalladated compds. of formula (μ -OAc)₂[Pd{C₆H₄CH:NCH₂-2,6-(H₁-xD_x)₂C₆H₃}]₂ (2d), whose D atoms were located at the ortho positions of the benzyl groups and whose D content slowly increased with the time of reaction b. Treatment of the cyclopalladated compound of formula (μ -OAc)₂[Pd(C₆H₄CH:NCH₂C₆H₅)]₂ (2) in CH₃CO₂D at 60° for 24 h, led to compound 2d with a D content [expressed as percentage of

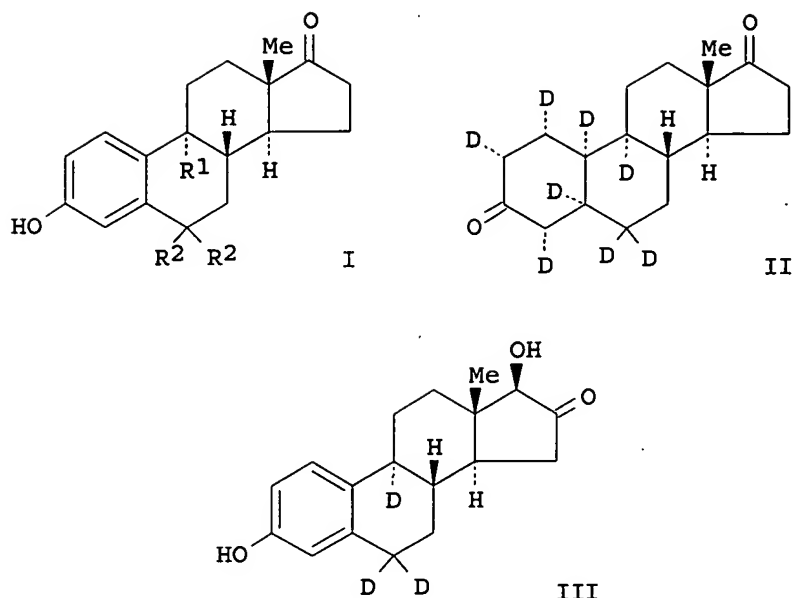
occupation by D atoms of the ortho positions of its benzyl groups] of .apprx.10%. However, reaction b after 24 h of reaction yielded a compound 2d with a D content of .apprx.40%. The solution formed, when 1 and Pd(OAc)₂ in a 1:1 molar ratio were dissolved in a solution of CDCl₃ in perdeuterated HOAc in a 1:2 volume ratio, contained as major compds. benzaldehyde, C₆H₅CH₂ND₂ and Pd(OAc-d₃)₂ a few minutes after its formation. However, after 2 wk at room temperature, its major compds. were benzaldehyde and the cyclopalladated compds. (μ-OAc-d₃)₂[Pd(C₆H₄CH₂ND₂)]₂ and (μ-OAc-d₃)₂[Pd(C₆H₄CH:NCH₂C₆H₅)]₂. These results led to the proposal of a set of reactions that produced 2, when 1 and Pd(OAc)₂ reacted in HOAc.

RE.CNT 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 4 OF 8 CAPLUS COPYRIGHT 2005 ACS on STN
TI Pd/C-H₂-catalyzed deuterium exchange
 reaction of the benzylic site in D₂O
AN 2002:526646 CAPLUS
DN 137:384626
TI Pd/C-H₂-catalyzed deuterium exchange
 reaction of the benzylic site in D₂O
AU Sajiki, Hironao; Hattori, Kazuyuki; Aoki, Fumiyo; Yasunaga, Kanoko;
 Hirota, Kosaku
CS Laboratory of Medicinal Chemistry, Gifu Pharmaceutical University, Gifu,
 502-8585, Japan
SO Synlett (2002), (7), 1149-1151
 CODEN: SYNLES; ISSN: 0936-5214
PB Georg Thieme Verlag
DT Journal
LA English
OS CASREACT 137:384626
AB Pd/C is found to catalyze efficient and chemoselective
 exchange of deuterium derived from D₂O with hydrogens on
 a benzylic carbon in the presence of a catalytic amount of
 hydrogen at room temperature

RE.CNT 32 THERE ARE 32 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 5 OF 8 CAPLUS COPYRIGHT 2005 ACS on STN
TI Deuteration of estrogens using Pd/C as a catalyst
AN 2000:550049 CAPLUS
DN 133:322037
TI Deuteration of estrogens using Pd/C as a catalyst
AU Kiuru, Paula; Wahala, Kristiina
CS Department of Chemistry, Organic Chemistry Laboratory, University of
 Helsinki, FIN-00014, Finland
SO Synthesis and Applications of Isotopically Labelled Compounds 1997,
 Proceedings of the International Symposium, 6th, Philadelphia, PA, United
 States, Sept. 14-18, 1997 (1998), Meeting Date 1997, 475-477. Editor(s):
 Heys, J. Richard; Melillo, David G. Publisher: John Wiley & Sons Ltd.,
 Chichester, UK.
 CODEN: 69AGFQ
DT Conference
LA English
GI



AB The reduction of estrone (I; R1 = R2 = H) using D2 on Pd/C gives 1 α ,2 α ,4 α ,5 α ,6,6,9 α ,10 α -[2H3]estrane-3,17-dione (II), the configuration of **deuteriums** been established by NMR. Pd/C catalyzes the H-D **exchange** also at the **benzylic** positions of estrogens. 6,6,9-[2H3]estrone (I; R1 = R2 = D) and 6,6,9-[2H3]-16-ketoestradiol (III) were synthesized in high isotopic purity.

RE.CNT 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 6 OF 8 CAPLUS COPYRIGHT 2005 ACS on STN

TI Palladium-catalyzed transfer hydrogenolysis of benzyl acetate with ammonium formate

AN 1997:177475 CAPLUS

DN 126:305344

TI Palladium-catalyzed transfer hydrogenolysis of benzyl acetate with ammonium formate

AU Rajagopal, S.; Spatola, A. F.

CS Department of Chemistry, University of Louisville, Louisville KY 40292, USA

SO Applied Catalysis, A: General (1997), 152(1), 69-81
CODEN: ACAGE4; ISSN: 0926-860X

PB Elsevier

DT Journal

LA English

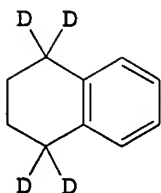
AB Transfer hydrogenolysis of benzyl acetate, a model reaction for C-O hydrogenolysis, was achieved by ammonium formate and Pd/C at 20°C. Hydrogen-donating abilities of various formate salts were found to depend on the counter-ion: K⁺ > NH₄⁺ > Na⁺ > NH₄Et³⁺ > Li⁺ > H⁺. Kinetic studies using HCOONH₄ revealed that the rate of transfer hydrogenolysis was independent of the substrate (benzyl acetate) concentration. First order dependence was exhibited by both hydrogen donor (HCOONH₄) and the catalyst (10 Pd/C). The initial reaction rate dropped from 46.9+10⁻³molL⁻¹min⁻¹ to 26.8+10⁻³molL⁻¹min⁻¹ when HCOONH₄ was replaced with DCOOND₄ giving a calculated primary kinetic isotope effect of 1.75. From the kinetic and isotope effect data, a mechanism has been proposed involving abstraction of formyl hydrogen by the catalyst as the rate-limiting step. The rate law derived was R = k' [HCOONH₄] [Pd/C]. Hydrogen isotope labeling studies using DCOOND₄ as hydrogen donor disclosed that the expected mono-deuterated toluene (C₆H₅CH₂D) was not formed exclusively.

Instead, a mixture of deuterated toluenes (C₆H₅CH_xD_{3-x}) was obtained, demonstrating that benzylic hydrogens are highly labile on the catalyst surface and exchange with the solvent.

RE.CNT 54 THERE ARE 54 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 7 OF 8 CAPLUS COPYRIGHT 2005 ACS on STN
TI Heterogeneous catalytic isotopic exchange of benzylic compounds in solution
AN 1994:579037 CAPLUS
DN 121:179037
TI Heterogeneous catalytic isotopic exchange of benzylic compounds in solution
AU Azran, Jacques; Shimoni, Michael; Buchman, Ouri
CS Radiochemistry Dep., Nuclear Research Centre-Negev, Beer-Sheva, 84190, Israel
SO Journal of Catalysis (1994), 148(2), 648-53
CODEN: JCTLA5; ISSN: 0021-9517
DT Journal
LA English
AB Isotopic exchange reactions of bibenzyl and benzylic derivs. with deuterium (D₂) and tritium (T₂) gas, catalyzed by Pd/C, have been performed in solution. Catalyst pre-washed with the reacting gas showed improved H/D or H/T exchange. In aprotic solvents such as dioxane, Et acetate, and cyclohexane, 3.1 to 3.5 D atoms were exchanged under standard conditions in 1 h, while in benzene 1 D atom was exchanged. D atoms adsorbed on the catalyst surface were rapidly replaced by H from methanol, diluting the D₂ gas phase. Compds. containing O or N atoms enhanced the rate of exchange, while S atoms inhibited the catalyst activity. The H/D exchange obeyed pseudo-first-order kinetics when D₂ gas was used in large excess. When T₂ gas replaced D₂, a substantial decrease in the rate of exchange was observed due to the slower dissociative chemisorption of T₂ on the catalyst surface. The results indicated that this exchange process occurred through two simultaneous mechanisms. The breaking of the C-H bond appeared to be the rate-determining step.

L8 ANSWER 8 OF 8 CAPLUS COPYRIGHT 2005 ACS on STN
TI A selective method for deuterium exchange in hydroaromatic compounds
AN 1987:66870 CAPLUS
DN 106:66870
TI A selective method for deuterium exchange in hydroaromatic compounds
AU Ofosu-Asante, K.; Stock, L. M.
CS Dep. Chem., Univ. Chicago, Chicago, IL, 60637, USA
SO Journal of Organic Chemistry (1986), 51(26), 5452-4
CODEN: JOCEAH; ISSN: 0022-3263
DT Journal
LA English
OS CASREACT 106:66870
GI



AB Deuteration of benzyl and hydroarom. compds. with palladium catalyst under D₂ in AcOD gave products that were selectively deuterated in the benzylic positions. Thus, PhCH₂CH₂CH₂Ph and 5,6,7,8-tetrahydronaphthalene were

deuterated in AcOD under D2 over Pd/C to give 74% PhCD2CH2CD2Ph and 90% the tetradeuteronaphthalene I, resp. Other compds. examined in this exchange deuteration procedure included PhCH2CH2Ph, Ph3CH, Ph2CH2, 9,10-dihydroanthracene, 9,10-dihydrophenanthrene, and 5,6,7,8-tetrahydro-1-naphthalenecarboxylic acid. Yields ranged from 70-95%.

=> sealed

L9 92805 SEALED

=> l8 and l9

L10 0 L8 AND L9

=> logoff hold

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	50.20	50.41
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	-6.57	-6.57

SESSION WILL BE HELD FOR 60 MINUTES
STN INTERNATIONAL SESSION SUSPENDED AT 10:03:37 ON 01 DEC 2005

Connecting via Winsock to STN

Welcome to STN International! Enter x:x

LOGINID:SSSPTA1623PAZ

PASSWORD:

* * * * * RECONNECTED TO STN INTERNATIONAL * * * * *
SESSION RESUMED IN FILE 'CAPLUS' AT 10:31:24 ON 01 DEC 2005
FILE 'CAPLUS' ENTERED AT 10:31:24 ON 01 DEC 2005
COPYRIGHT (C) 2005 AMERICAN CHEMICAL SOCIETY (ACS)

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	50.20	50.41
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	-6.57	-6.57

=> d his

(FILE 'HOME' ENTERED AT 09:54:35 ON 01 DEC 2005)

FILE 'CAPLUS' ENTERED AT 09:54:43 ON 01 DEC 2005

L1 9953 DEUTERIUM (L) EXCHANGE
L2 239348 PALLADIUM OR PD
L3 498 L1 AND L2
L4 16857 SEALED TUBE
L5 6 L3 AND L4
L6 271 L1(L)L2
L7 293503 BENZYL?
L8 8 L6 (L)L7
L9 92805 SEALED
L10 0 L8 AND L9

=> isotope (1) exchange

222532 ISOTOPE
 103418 ISOTOPES
 268565 ISOTOPE
 (ISOTOPE OR ISOTOPES)
 544180 EXCHANGE
 16396 EXCHANGES
 551967 EXCHANGE
 (EXCHANGE OR EXCHANGES)

L11 16642 ISOTOPE (L) EXCHANGE

=> l2 and l11

L12 446 L2 AND L11

=> deuterium

85155 DEUTERIUM
 142 DEUTERIUMS

L13 85222 DEUTERIUM
 (DEUTERIUM OR DEUTERIUMS)

=> l12 and l13

L14 158 L12 AND L13

=> l9 and l14

L15 1 L9 AND L14

=> d l15 ti fbib abs

L15 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2005 ACS on STN

TI Deuterium-hydrogen exchange reaction catalysts

AN 1978:467316 CAPLUS

DN 89:67316

TI Deuterium-hydrogen exchange reaction catalysts

IN Kiyoura, Tadimitsu

PA Mitsui Toatsu Chemicals, Inc., Japan

SO Jpn. Kokai Tokkyo Koho, 4 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 53012792	A2	19780204	JP 1976-87149	19760723
	JP 58048216	B4	19831027		
				JP 1976-87149	A 19760723

AB Metallic catalysts (Pt, Pd, Rh, Ru, and Re) supported by a fluorinated carbon support or an inert catalytic support coated with fluorinated carbon are useful for D-H exchange reactions between water and H gas. Thus, a Pt catalyst supported by fluorinated graphite (C/F atomic ratio 1:1; 0.5 weight% Pt) was prepared, then the catalyst (50 mg) and water whose D concentration was 0.15 atomic% were sealed in a container (50 mL volume) under 1 atm H, and the container was shaken vigorously (at 28° for 10 min) to give an exchange factor of 95% vs. 60% for a Pt catalyst supported by activated carbon.

=> parr

3735 PARR
 19 PARRS

L16 3743 PARR
 (PARR OR PARRS)

=> l14 and l16

L17 0 L14 AND L16

=> l11(1)L12

PROXIMITY OPERATOR LEVEL NOT CONSISTENT WITH
FIELD CODE - 'AND' OPERATOR ASSUMED 'L11(L)L12'
L18 446 L11(L)L12

=> L2(1)L11
L19 346 L2(L)L11

=> L13(L)L19
L20 42 L13(L)L19

=> D L20 32-42 TI

L20 ANSWER 32 OF 42 CAPLUS COPYRIGHT 2005 ACS on STN
TI Homogeneous oxidation of 1-octene by dioxygen or tert-butyl hydroperoxide
catalyzed by rhodium(III) or palladium(II) species. Studies with oxygen-18
and 1-octene-2-d2

L20 ANSWER 33 OF 42 CAPLUS COPYRIGHT 2005 ACS on STN
TI Real-time experimental measurements of isotopic exchange between gaseous
hydrogen and palladium hydride powder

L20 ANSWER 34 OF 42 CAPLUS COPYRIGHT 2005 ACS on STN
TI Mechanism of lactose translocation in proteoliposomes reconstituted with
lac carrier protein purified from Escherichia coli. II. Deuterium
solvent isotope effects

L20 ANSWER 35 OF 42 CAPLUS COPYRIGHT 2005 ACS on STN
TI Electrolytic hydrogen isotope separation factors and efficiency of
exchange between deuterated water and hydrogen (protium) at palladium
electrodes

L20 ANSWER 36 OF 42 CAPLUS COPYRIGHT 2005 ACS on STN
TI Deuterium- and tritium-labeled thiomalonic S-esters

L20 ANSWER 37 OF 42 CAPLUS COPYRIGHT 2005 ACS on STN
TI Hydrogen-water deuterium exchange over unsupported Group VIII noble metals

L20 ANSWER 38 OF 42 CAPLUS COPYRIGHT 2005 ACS on STN
TI Glutathione-catalyzed hydrogen isotope exchange at position 5 of uridine.
Model for enzymic carbon alkylation reactions of pyrimidines

L20 ANSWER 39 OF 42 CAPLUS COPYRIGHT 2005 ACS on STN
TI Isotopic exchange reactions involving alcohols, ketones, and deuterium on
silica, on palladium/silica, and on alumina

L20 ANSWER 40 OF 42 CAPLUS COPYRIGHT 2005 ACS on STN
TI Mechanism for exchange between aqueous solutions and deuterium gas on
palladium surfaces

L20 ANSWER 41 OF 42 CAPLUS COPYRIGHT 2005 ACS on STN
TI The mechanism for the isotopic exchange between deuterium and acidic
solutions on palladium surfaces

L20 ANSWER 42 OF 42 CAPLUS COPYRIGHT 2005 ACS on STN
TI Differences in the catalytic activities of nickel, platinum, and
palladium as observed in the **isotope-exchange**
reaction of p-xylene with **deuterium** oxide

=> D L20 42 TI FBIB ABS

L20 ANSWER 42 OF 42 CAPLUS COPYRIGHT 2005 ACS on STN
TI Differences in the catalytic activities of nickel, platinum, and
palladium as observed in the **isotope-exchange**
reaction of p-xylene with **deuterium** oxide

AN 1962:407874 CAPLUS

DN 57:7874

OREF 57:1602f-i

TI Differences in the catalytic activities of nickel, platinum, and palladium as observed in the isotope-exchange reaction of p-xylene with deuterium oxide

AU Hirota, Kozo; Ueda, Tomiko

CS Univ. Osaka

SO Bulletin of the Chemical Society of Japan (1962), 35, 228-32

CODEN: BCSJA8; ISSN: 0009-2673

DT Journal

LA Unavailable

AB The difference in the catalytic activity of Pt and Ni on p-xylene, the activity of Pd, and the effects of carriers on the activity of catalysts are reported. D2O (99.7%) is used as obtained along with Ni-kieselguhr. Tech. p-xylene is shaken with Hg to remove S compds. and recrystd. five times to sep. it from o- and m-xylene. The purified p-xylene is dried over Na and distilled into a storage vessel. Ni-Al2O3 and Ni-SiO2 are prepared by decomposing Ni formate supported on Al3O3 and SiO2 at 270°. The Ni formate-Al2O3 is prepared by adding 80% HCOOH to a NiCO3 suspension containing suspended Al2O2, and Me2CO is added to the solution to complete the precipitation of

Ni formate. Com. activated γ -Al2O3 and pure Al2O3 from the dehydration of alumina gel are used. Ni formate-SiO2 is prepared in the same manner by the use of com. silica gel. Pt black is prepared by the reduction of H2PtCl6 with HCHO and KOH. The catalyst under test is prepared in a reaction tube and the p-xylene and D2O are charged by distillation from their storage vessels. After the reaction, the p-xylene and D2O are separated from the catalysts by distillation; the top layer of p-xylene is dehydrated with CaCl2 and distilled, and analyzed by using an infrared spectrophotometer. Ni can exchange catalytically only H atoms of methyl groups of p-xylene with D2O irrespective of the method of preparation while Pt and Pd can exchange H atoms of both methyl groups and benzene ring. The catalytic activity of Ni is similar to Pt and Pd if supported on Al2O3 and unchanged if supported on silica or kieselguhr.

=> logoff hold

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

73.33

73.54

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

SINCE FILE

TOTAL

ENTRY

SESSION

CA SUBSCRIBER PRICE

-8.03

-8.03

SESSION WILL BE HELD FOR 60 MINUTES

STN INTERNATIONAL SESSION SUSPENDED AT 10:40:22 ON 01 DEC 2005

Connecting via Winsock to STN

Welcome to STN International! Enter x:x

LOGINID:SSSPTA1623PAZ

PASSWORD:

* * * * * RECONNECTED TO STN INTERNATIONAL * * * * *

SESSION RESUMED IN FILE 'CAPLUS' AT 11:08:28 ON 01 DEC 2005

FILE 'CAPLUS' ENTERED AT 11:08:28 ON 01 DEC 2005

COPYRIGHT (C) 2005 AMERICAN CHEMICAL SOCIETY (ACS)

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

FULL ESTIMATED COST	ENTRY	SESSION
	73.33	73.54
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE	TOTAL
	ENTRY	SESSION
CA SUBSCRIBER PRICE	-8.03	-8.03

=> hirota/Au
L21 3 HIROTA/AU

=> d l21 1-3 ti

L21 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2005 ACS on STN
TI Substrate heating method, baseplate cooling method, and those devices.
[Machine Translation].

L21 ANSWER 2 OF 3 CAPLUS COPYRIGHT 2005 ACS on STN
TI Hemoglobinuric fever, cured by neosalvarsan

L21 ANSWER 3 OF 3 CAPLUS COPYRIGHT 2005 ACS on STN
TI Hemoglobinuric fever, cured by neosalvarsan

=> logoff hold		
COST IN U.S. DOLLARS	SINCE FILE	TOTAL
	ENTRY	SESSION
FULL ESTIMATED COST	77.08	77.29
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE	TOTAL
	ENTRY	SESSION
CA SUBSCRIBER PRICE	-8.03	-8.03

SESSION WILL BE HELD FOR 60 MINUTES
STN INTERNATIONAL SESSION SUSPENDED AT 11:09:41 ON 01 DEC 2005

Connecting via Winsock to STN

Welcome to STN International! Enter x:x

LOGINID:SSSPTA1623PAZ

PASSWORD:
TERMINAL (ENTER 1, 2, 3, OR ?):2

* * * * * Welcome to STN International * * * * *

NEWS	1	Web Page URLs for STN Seminar Schedule - N. America
NEWS	2	"Ask CAS" for self-help around the clock
NEWS	3 SEP 09	ACD predicted properties enhanced in REGISTRY/ZREGISTRY
NEWS	4 OCT 03	MATHDI removed from STN
NEWS	5 OCT 04	CA/CAPplus-Canadian Intellectual Property Office (CIPO) added to core patent offices
NEWS	6 OCT 13	New CAS Information Use Policies Effective October 17, 2005
NEWS	7 OCT 17	STN(R) AnaVist(TM), Version 1.01, allows the export/download of CAPplus documents for use in third-party analysis and visualization tools
NEWS	8 OCT 27	Free KWIC format extended in full-text databases
NEWS	9 OCT 27	DIOGENES content streamlined
NEWS	10 OCT 27	EPFULL enhanced with additional content
NEWS	11 NOV 14	CA/CAPplus - Expanded coverage of German academic research
NEWS	12 NOV 30	REGISTRY/ZREGISTRY on STN(R) enhanced with experimental

spectral property data

NEWS EXPRESS NOVEMBER 18 CURRENT VERSION FOR WINDOWS IS V8.01,
CURRENT MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP),
AND CURRENT DISCOVER FILE IS DATED 13 JUNE 2005.
V8.0 USERS CAN OBTAIN THE UPGRADE TO V8.01 AT
<http://download.cas.org/express/v8.0-Discover/>

NEWS HOURS STN Operating Hours Plus Help Desk Availability
NEWS INTER General Internet Information
NEWS LOGIN Welcome Banner and News Items
NEWS PHONE Direct Dial and Telecommunication Network Access to STN
NEWS WWW CAS World Wide Web Site (general information)

Enter NEWS followed by the item number or name to see news on that
specific topic.

All use of STN is subject to the provisions of the STN Customer
agreement. Please note that this agreement limits use to scientific
research. Use for software development or design or implementation
of commercial gateways or other similar uses is prohibited and may
result in loss of user privileges and other penalties.

* * * * * STN Columbus * * * * *

FILE 'HOME' ENTERED AT 12:10:33 ON 01 DEC 2005

=> off hold

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

0.21

0.21

SESSION WILL BE HELD FOR 60 MINUTES

STN INTERNATIONAL SESSION SUSPENDED AT 12:10:38 ON 01 DEC 2005